



Arizona Transportation Research Center

NEWSLETTER — JANUARY 2005

Project Updates

Highlights from selected projects

STATE PLANNING AND RESEARCH (SPR) PROJECTS

SPR-562 – ITS Technologies and Mature Drivers

This research by Arizona State University focused on the perceptions of older drivers of the Intelligent Transportation System (ITS) technologies deployed on the urban freeway system in the Phoenix region.



A series of focus groups with drivers over age 65 explored their perceptions of ITS technologies. Both year-round residents and winter visitors were included. An additional set of drivers, aged 40 to 55, served as a control group. The study focused on three widely deployed technologies—overhead variable-message signs (VMS), portable variable-message boards, and ramp meters.

The older drivers in the study were frequent users of the Phoenix urban freeway system and were generally enthusiastic about ITS traffic devices. They suggested relatively small changes to enhance the effectiveness of the devices. Large VMS with yellow letters on a black background were rated as far easier to read than standard highway signs. Study participants urged using them only to convey short,

specific directions. Portable electronic signs captured attention near work zones, but their placement, legibility, and multiple screen messages caused problems in processing information effectively.

Ramp meters not only helped the flow of traffic, but also benefited older drivers by providing about 4 seconds to find a gap in traffic. The study found that accidents have declined at on-ramps; the ramp meters and new acceleration lanes have both played a role.

The older drivers also assessed ADOT's Advanced Traveler Information Systems (ATIS) effort including 511, a dedicated interactive telephone reporting system, and the AZ511.com website which provides near-real time highway condition, restriction, and traffic reports. The project provided in-depth review comments at intervals, and contributed specific suggestions to enhance these evolving information resources.



SPR-560 – Improving Construction Communication

This study examines data collected from Arizona Department of Transportation customers during a construction project on State Route 51 (SR 51). During the \$75 million project, approximately 10 miles of SR 51 between Interstate 10 and State Route 101 were renovated to include new high occupancy vehicle (HOV) lanes and rubberized asphalt. Satisfaction was measured by a composite score based on customer satisfaction with traffic, dust, noise, signage, and information during the construction process. Approximately 125,000 surveys were distributed over a nine month period. The average response rate was 5.5 percent. The study recommendations are summarized in the table below.

Channel	Recommendation
DIRECT	
Construction bulletins	Continue current use
Construction signs	Continue current use
Web site	Expand use
E-mail alerts	Expand use
INDIRECT	
Radio	Improve if continued use
Television	Improve if paid use
Newspaper	Continue current use
Neighbors and friends	Very important to improve

ATRC Staff

Frank Darmiento – Manager
Tom Kombe – Project Manager
Steve Owen – Project Manager
Ben Riddle – Engineering Assistant
John Riemer – Data Technician
John Semmens – Project Manager
Dale Steele – Librarian
VACANT – Project Manager
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ANNUAL TRB MEETING

ADOT sent nine representatives to the annual Transportation Research Board meeting in Washington, D.C. this month. The Intermodal Transportation Division was represented by Fred Garcia (Environment and Enhancement Group), Lonnie Hendrix (Central Maintenance), Jennifer Livingston (Statewide Project Management), Julie Nodes (Materials Group) and Larry Scofield (Materials Group). The Transportation Planning Division sent Frank Darmiento (ATRC), Diane Kresich (Planning), and John Pein (Planning). In addition, John Semmens (ATRC), who did not attend, had three papers he wrote or co-authored, presented on his behalf. Lisa Wormington (Civil Rights) represented the Transportation Services Group. More than 9,000 people attended the meeting.

NOTE: Frank Darmiento is the ADOT TRB representative.

Contact:

Frank T. Darmiento, P.E.
Telephone: (602) 712-3134
Fax: (602) 712-3400
fdarmiento@azdot.gov

ARIZONA TRANSPORTATION RESEARCH CENTER
2739 E. Washington St., Mail Drop 075R
Phoenix AZ 85034-1422

<http://www.azdot.gov/ABOUT/atrc/Index.htm>

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